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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VU, PHUONG T

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 09/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,373

Applicant(s)

BOLOGNIA ET AL.

Examiner

Phuong T. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. The claim refers to a stationary member but does not mention where this member is positioned. It is unclear how the claim language supports the recitation that the installation is facilitated. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined

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under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 9, 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Potter et al. (US 6,533,587B1). Regarding claim 9, the reference discloses a server comprising a chassis 50 having a 1U profile, and a PCI card assembly having a framework 32, 34 sized to fit within the chassis, the framework being configured to receive a pair of opposed PCI cards 40.

Regarding method claim 20, one would necessarily perform the recited method steps in assembling the apparatus rejected above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffes et al. (US 5,338,214) in view of Murphy (US 4,979,075). Regarding claim 1, Steffes discloses a PCI card assembly 24 comprising a framework 26, a PCI riser card 20 connected to the framework and disposed in a generally vertical orientation, a first PCI card 22 coupled to the PCI riser card and oriented generally perpendicular to the PCI riser card and a lever system 106 to move the framework between an install position and eject position. Steffes discloses providing a second PCI coupled to the PCI riser and disposed generally

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perpendicular to the PCI riser card however does not teach that it extends from the PCI riser card in a direction opposite that of the first PCI card. However, Murphy discloses an assembly with riser card 206 which has connectors on both opposing sides of the riser card for accepting expansion cards on both sides of the riser card. The Murphy reference is relied upon solely for this teaching. It would have been obvious to those skilled in the art at the time the invention was made to modify the PCI card assembly so that the framework would accept a PCI riser card which receives cards on both sides of the PCI riser card as taught by Murphy to allow the assembly to receive additional cards to expand the functionality of the electronic device containing the PCI card assembly.

Regarding claim 2, Steffes shows that the PCI cards which are coupled to the riser are standard size, full-length PCI cards. Furthermore, while Murphy shows that the riser card receives a full size card 30 on one side of the riser card and a smaller card 50 on the other side of the riser card, Murphy explains that either card may be placed on either side of the riser card. Therefore, the riser card could also accept full sized cards on both sides, or smaller cards on both sides, depending on a user's particular application or needs. It would be obvious to provide a configuration where standard size, full length PCI cards may be accommodated on both sides and where smaller cards may also be accepted to provide the greatest flexibility to users when reconfiguring or upgrading the electronic device.

Regarding claim 3, Steffes shows that the framework includes a center framework portion 114 of wall 28a to which the lever system is pivotally mounted.

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In the modified framework, a center framework portion would also necessarily have a lever system pivotally mounted.

Regarding claim 4, Steffes shows that the lever system is mounted on a pivot and includes a handle 108 disposed on one side of the pivot 110 and a gripping member 118 disposed on an opposite side of the pivot.

Regarding claim 6, a connector is configured to electrically connect the inserted PCI cards to another printed circuit board.

6. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffes et al. (US 5,338,214) and Murphy (US 4,979,075) in further view of Hasegawa et al. (US 6,312,273B1). This is a separate and alternative rejection to claim 4. Regarding claim 4, Steffes shows that the lever system is mounted on a pivot and includes a gripping member 108 disposed on one side of the pivot but does not disclose a handle disposed on the other side of the pivot. However, Hasegawa shows a handle lever system 30 with gripping members (lower most portions of 31) which extend from two sides of a frame with a handle 32 between the gripping members for attaching a frame 10 to a body 20. The Hasegawa reference is relied upon solely for the teaching of the handle lever system to attach the frame to the body. It would have been obvious to modify the handle lever system of Steffes to provide a handle lever system with gripping members which extend from two sides of the framework with a handle between the gripping member as shown by Hasegawa to evenly distribute the pressure applied to the lever system; this configuration makes the system easier to use. Such handle lever systems are expedient in the art. Those skilled in the art

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would recognize that in such a configuration, the handles would necessarily be displaced to the opposing sides of the framework so as to not impede the insertion of the PCI cards to either side of the riser card.

Regarding claim 5, Hasegawa discloses that the gripping member includes a recess 36 sized to engage a corresponding, stationary feature 26 to facilitate installation as the lever system is pivoted.

Regarding claim 6, Steffes shows that a connector is configured to electrically connect the inserted PCI cards to another printed circuit board.

Regarding claim 7, in the above-mentioned combination, the lever system would include a pair of lever members 31 attached to the gripping members.

Regarding claim 8, Steffes shows that the framework further includes first support end 36 and a second support end 38 oriented generally perpendicular to the center framework portion.

7. Claims 9-13, 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potter et al. (US 6,533,587B1) in view of Steffes et al. (US 5,338,214). Regarding claim 9, Potter discloses a server comprising a chassis 50 having a 1U profile, and a PCI card assembly sized to fit within the chassis, the framework being configured to receive a pair of opposed PCI cards 40. Potter does not teach providing the PCI card assembly with a framework, however, Steffes teaches providing a framework which fits in a chassis and which positions a PCI riser card and PCI expansion cards which are connected to the PCI riser card. It would have been obvious to those skilled in the art at the time the invention was made to modify the PCI card assembly of Potter to

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provide a framework as taught by Steffes for quickly and operatively coupling the PCI card assembly to a board in the chassis. The framework may be easily removed as single unit from the board and chassis and one may then readily replace the PCI riser card or the PCI expansion cards without disturbing the board, or components or other connections provided on the board or chassis. Furthermore, the framework would provide mechanical support to the PCI riser card and the PCI expansion cards for more stability and would provide a more reliable connection to the board in the chassis.

Regarding claim 10, Potter teaches providing a PCI riser card 32 disposed between and coupled to the pair of opposed PCI cards. Steffes shows providing a PCI riser card 20 coupled to PCI cards 22.

Regarding claim 11, Steffes shows that the framework comprises a center framework portion to which a PCI riser card is mounted.

Regarding claim 12, Steffes discloses that the framework has provided a lever system 108 to move the PCI card assembly between an installed position and an eject position.

Regarding claim 13, Steffes discloses that the lever system is pivotally mounted to the framework for pivotable motion about a pivot 110.

Regarding method claims 21-25, one would necessarily perform the recited method steps in assembling the apparatus rejected above.

8. Claims 14-19, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potter et al. (US 6,533,587B1) in view of Steffes et al. (US 5,338,214) in further view of Hasegawa et al. (US 6,312,273B1). Regarding

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claim 14, Steffes does not show that the lever system comprises a lever member having a gripping end disposed on one side of the pivot, wherein a member to which the framework is to be attached includes a stationary feature configured for engagement with the gripping end, however, Hasegawa shows that it is known to provide a frame 10 with handle lever system 30 with a lever member 31 having gripping end disposed on one side of a pivot, wherein a body 20 to which the frame is to be attached includes a stationary feature 26 configured for engagement with the gripping end. The Hasegawa reference is relied upon solely for the teaching of the handle lever system to attach the frame to the body. It would have been obvious to modify the above-mentioned configuration of Steffes and Potter to provide a handle lever system comprising a lever member with gripping ends for engagement with a stationary feature of a chassis for receiving the framework to more securely attach the framework with the chassis as shown by Hasegawa. Such handle lever systems are expedient in the art.

Regarding claim 15, the lever system of Hasegawa comprises a handle connected to lever member on an opposite side of the pivot from the gripping end 32. It would have been obvious to modify the handle lever system of the above-mentioned combination to provide a handle lever system with gripping members which extend from two sides of the framework with a handle between the gripping member as shown by Hasegawa to evenly distribute the pressure applied to the lever system; this configuration makes the system easier to use. Such handle lever systems are expedient in the art. Those skilled in the art would recognize that in such a configuration, the handles would necessarily be

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displaced to the opposing sides of the framework so as to not impede the insertion of the PCI cards to either side of the riser card. In the above-mentioned combination, the movement of the handle when the gripping end is engaged with the stationary feature would cause a lateral movement of the PCI card assembly.

Regarding claim 16, the lever system comprises a pair of lever members 31 mounted for pivotable motion about a pivot and connected to each other by a handle.

Regarding claim 17, both Steffes and Potter show that the inserted PCI cards are standard size, full-length PCI cards.

Regarding claim 18, Potter shows that the first PCI card and the second PCI card are disposed in a vertically staggered position.

Regarding claim 19, in the above-mentioned combination, the framework includes a plurality of retention features to engage the chassis when the framework is moved to the installed position.

Regarding method claims 25-26, one would necessarily perform the recited method steps in assembling the apparatus rejected above.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Vu whose telephone number is (703) 308-0303. The examiner can normally be reached on Mon. & Tues., 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S. Martin can be reached on (703) 308-3121. The

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fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

PTVu
Patent Examiner
August 21, 2003

